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Docket No.: MRE-0052 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	:	
Dong June KIM	:	
Serial No. 10/058,385	:	Group Art Unit: 3682
Confirm. No.: 5893	:	Examiner: T. Hannon
Filed: January 30, 2002	:	Customer No.: 34610

For: FAN APPARATUS FOR CHAMBER OF HANDLER

PETITION TO WITHDRAW HOLDING OF ABANDONMENT

U.S. Patent and Trademark Office
2011 South Clark Place
Customer Window, Mail Stop Petition
Crystal Plaza Two, Lobby, Room 1B03
Arlington, Virginia 22202

Sir:

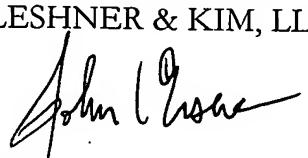
Applicant received a Notice of Abandonment for the above-identified application dated November 21, 2003. The Notice of Abandonment indicated that the application had been declared abandoned because no reply had been received to an outstanding Office Action.

The last Office Action issued in this application is dated April 14, 2003. Applicants filed an Amendment, along with a Petition for Extension of Time, responding to the Office Action on October 14, 2003. A complete copy of the Amendment, the Amendment Transmittal, the Petition for Extension of Time and a date-stamped postcard indicating that these documents were received in the Patent Office on October 14, 2003 is enclosed herewith.

Because Applicant timely filed a Reply to the April 14 Office Action, the Patent Office is requested to withdraw the holding of abandonment. Because the application was declared

abandoned due to a Patent Office error, it is believed that no fees are due in connection with the filing of this Petition. However, to the extent any fees are due, the Patent Office is hereby authorized to charge Deposit Account No. 16-0607. If Patent Office personnel have any questions regarding this matter, they are invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,
FLESHNER & KIM, LLP



John C. Eisenhart
Registration No. 38,128

Enclosures:
- Amendment Transmittal
- Amendment
- Petition for Extension of Time
- Date-stamped Postcard

P.O. Box 221200
Chantilly, Virginia 20153-1200
703 502-9440 JCE/ilg
Date: December 4, 2003

Please direct all correspondence to Customer Number 34610

The Patent Office acknowledges, and has stamped hereon, the date of receipt of the items listed below:

Docket No.: MRE-0052 Application No. 10/058,385

Title: FAN APPARATUS FOR CHAMBER OF HANDLER

Inventor(s): Dong June KIM

	FEE(S)	CHECK NO.
1. Amendment Transmittal 2. Amendment 3. Petition for Extension of Time	$1112.00	10398
TOTAL FEE:	$1112.00	

Old Due Date: October 14, 2003 New Due Date: n/a Initials: JCE/JKM:sbh

( ) Charge To Deposit Account 16-0607 Date Filed: October 14, 2003

3682/19

Docket No.: MRE-0052

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Dong June KIM

Serial No. 10/058,385 : Group Art Unit: 3682

Confirm. No.: 5893 : Examiner: T. Hannon

Filed: January 30, 2002 : Customer No.: 34610

For: FAN APPARATUS FOR CHAMBER OF HANDLER

U.S. Patent and Trademark Office
2011 South Clark Place
Customer Window, Mail Stop Non-Fee Amendment
Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202

Dear Sir:

Transmitted herewith is an Amendment and/or Reply in the above identified application.
[ ] No additional fee is required.
[X] Also attached: Petition For Extension of Time

The fee has been calculated as shown below:

	NO. OF CLAIMS	HIGHEST PREVIOUSLY PAID FOR	EXTRA CLAIMS	RATE	FEE
Total Claims	29	20	9	x $18 =	$162.00
Independent Claims	3	3		x $86 =	0.00
		If multiple claims newly presented, add $290.00			
		Fee for extension of time (3 month EOT)			$950.00
				TOTAL FEE DUE	$1112.00

[ ] Please charge my Deposit Account No. 16-0607 in the amount of $. An additional copy of this transmittal sheet is submitted herewith.

[X] A check in the amount of $ 1112.00 (Check # 10398) is attached.

[X] The Commissioner is hereby authorized to charge payment of any fees associated with this communication or credit any overpayment, to Deposit Account No. 16-0607, including any filing fees under 37 C.F.R. 1.16 for presentation of extra claims and any patent application processing fees under 37 C.F.R. 1.17.

Respectfully submitted,
FLESHNER & KIM, LLP

John C. Eisenhart
Registration No. 38,128
Carol L. Druzbick
Registration No. 40,287

P.O. Box 221200
Chantilly, Virginia 20153-1200
703 502-9440 JCE/CLD:sbh
Date: October 14, 2003

Please direct all correspondence to Customer Number 34610

Docket No.: MRE-0052 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	:	
Dong June KIM	:	
Serial No. 10/058,385	:	Group Art Unit: 3682
Confirm. No.: 5893	:	Examiner: T. Hannon
Filed: January 30, 2002	:	Customer No.: 34610
For: FAN APPARATUS FOR CHAMBER OF HANDLER		

PETITION FOR EXTENSION OF TIME UNDER 37 C.F.R. §1.136(a)(1)

U.S. Patent and Trademark Office
2011 South Clark Place
Customer Window
Crystal Plaza Two, Lobby, Room 1B03
Arlington, Virginia 22202

Sir:

Applicant petitions the Commissioner of Patents and Trademarks to extend the time for response to the Office Action dated April 14, 2003 for one (3) months from July 14, 2003 to October 14, 2003 .

A check including the amount for the extension of time under 37 C.F.R. §1.17(a) is enclosed. Any deficiency or overpayment should be charged or credited to Deposit Account No. 16-0607.

10/20/2003 BADRAHA1 00000043 10058385
01 FC:1253 950.00 OP

Respectfully submitted,
FLESHNER & KIM, LLP

John C. Eisenhart
Registration No. 38,128
Carol L. Druzbick
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Date: October 14, 2003
Please direct all correspondence to Customer Number 34610

Docket No.: MRE-0052 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	:	
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Serial No. 10/058,385	:	Group Art Unit: 3682
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Filed: January 30, 2002	:	Customer No.: 34610
For: FAN APPARATUS FOR CHAMBER OF HANDLER	:	

REPLY AND/OR AMENDMENT
UNDER 37 C.F.R. §§1.111 AND/OR 1.121

U.S. Patent and Trademark Office
2011 South Clark Place
Customer Window, Mail Stop Non-Fee Amendment
Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202

Sir:

In reply to the Office Action dated April 14, 2003, the due date having been extended to October 14, 2003 by the Petition for Extension of Time filed herewith, please amend the above-identified application as follows:

Amendments to the Drawings begin on page 2 of this paper and include both an attached replacement sheet and an annotated sheet showing changes.

Amendments to the Specification begin on page 3 of this paper.

Amendments to the Claims are reflected in the listing of claims which begins on page 5 of this paper.

Remarks/Arguments begin on page 13 of this paper.

Amendments to the Drawings:

The Examiner is requested to review and approve the changes made to Figure 4 as shown in the enclosed markup. A corrected formal version of Figure 4 is also enclosed.

Attachment: Replacement Sheet
Annotated Sheet Showing Changes

Amendments to the Specification:

The following are mark-ups to show changes made to the paragraph starting at page 2, line 20 and ending at page 3, line 2:

The rotary motor 1 is installed outside the chamber (not shown), and the shaft 3 is connected to a rotary central axis 1a of the rotary motor 1 installed inside the chamber by using the coupling 2. The shaft 3 is installed inside the case 4, and grease is filled inside the case 4 in a state that the bearing housing 5 is installed at both ends of the case 4. In addition, a sensor dog ~~6a~~ (not shown) and a sensor brake ~~6b~~ (not shown) are installed at the shaft 3 installed inside the case 4 and are used for stopping the shaft 3.

The following are mark-ups to show changes made to the paragraph starting at page 6, lines 9-18:

The fan apparatus of the present invention includes a rotary motor ~~1~~ 10, a coupling ~~2~~ 20, a shaft ~~3~~ 30, a case ~~4~~ 40 and a plurality of bearing housings ~~5~~ 60. At one end of the bearing housing 60, a sensor dog 51 and a sensor brake 52 are installed. The shaft 30 is connected to the rotary central axis 11 of the rotary motor 10 by the coupling 20. The shaft 30 connected to the rotary central axis 11 by the coupling 20 is installed inside the case 40, and a fan (not shown) is installed on the outer circumferential surface of the shaft 30.

The following are mark-ups to show changes made to the paragraph starting at page 8, lines 16-24:

On the inner circumferential surface of the first housing 62, a plurality of first guide recesses 62a are formed in the direction opposite to each other. As illustrated in Figs. 4 and 5, when the second housing 61 is inserted into the first housing 62, the plurality of second guide recesses 61a formed on the outer circumferential surface of the second housing 61 are installed ~~facing~~ with the plurality of first guide recesses 62a facing each other.

The following are mark-ups to show changes made to the paragraph starting at page 9, lines 11-23:

The number of the keys 63 installed at the second guide recess 61a and inserted into the first guide recess 62a is the same as the second guide recesses 61a and the first guide recesses 62a respectively formed at the second housing 61 and the first housing 62. When the key 63 is installed at the second guide recess ~~61~~ 61a and the first guide recess 62a, the first housing 62 is fixed at the case 40 by the push cover 66, thus finishing the installation of the fan apparatus of the dual structure. Here, a hole 62b formed at the first housing 62 fixed at the case 40 is used as an inlet of grease, and it is sealed with the plug 67 when the filling of the grease is finished.

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) ~~In a~~ A fan apparatus configured to be installed ~~to~~ in a chamber of a handler, ~~and a plurality of bearing housing installed to both ends of a case in which a shaft connected to a rotation central shaft of a rotation motor is installed therein,~~ the fan apparatus comprising:

a case;

a shaft configured to be connected to a central rotation shaft of a rotation motor, wherein the shaft is installed in the case;

a plurality of bearing housings installed in the case, wherein at least one of the bearing housings comprises:

a first housing portion having a plurality of first guide ~~recess formed~~ recesses;

a second housing portion configured to be contained in the first housing portion and slidable therein;

a bearing ~~being~~ installed inside the second housing portion and ~~supporting~~ configured to support the shaft; and

a plurality of labyrinths ~~being~~ installed, respectively, at both sides of the bearing and ~~supporting~~ configured to support the bearing~~, and~~

~~a push cover covering the second housing inserted into the first housing~~.

2. (Currently Amended) The fan apparatus of claim 1, wherein the first housing portion further comprises a grease inlet ~~capable of filling grease~~ configured to allow grease to be supplied to the bearing housing, and a plug ~~for sealing~~ configured to seal the grease inlet ~~are combined with one side of the first housing~~.

3. (Currently Amended) The fan apparatus of claim 1, wherein ~~a~~ the plurality of first guide recesses are formed ~~in the direction opposite to each other on the~~ on an inner ~~circumferential~~ surface of the first housing portion.

4. (Currently Amended) The fan apparatus of claim ~~1~~ 3, wherein the second housing portion ~~has the~~ comprises a plurality of second guide recesses formed on an outer ~~circumferential~~ surface ~~thereof which are installed~~ of the second housing portion, and wherein the plurality of second guide recesses are formed facing ~~with~~ the plurality of first guide recesses.

5. (Currently Amended) The fan apparatus of claim ~~3~~ 4, ~~wherein~~ further comprising a plurality of keys ~~are~~ configured to be slidably inserted and mounted into the plurality of first guide recesses and the plurality of second guide recesses.

6. (Currently Amended) The fan apparatus of claim 5, wherein the number of ~~the~~ keys installed ~~at~~ into the second guide recess and inserted into the first guide recess is the same as the number of second guide recesses and the number of first guide recesses ~~respectively~~ formed at the second housing portion and the first housing portion, respectively.

7. (New) The fan apparatus of claim 3, wherein the plurality of first guide recesses are formed opposite each other.

8. (New) The fan apparatus of claim 3, wherein the plurality of first guide recesses are formed extending in a longitudinal direction on an inner surface of the first housing portion.

9. (New) The fan apparatus of claim 4, wherein the plurality of second guide recesses are formed in a longitudinal direction on an outer surface of the of the second housing portion.

10. (New) The fan apparatus of claim 1, further comprising a push cover configured to cover the second housing portion when the second housing portion is inserted into the first housing portion.

11. (New) The fan apparatus of claim 1, wherein the second housing portion is further configured to slide in a longitudinal direction within the first housing portion in response to a force applied by the shaft.

12. (New) A fan apparatus configured to be installed in a chamber of a handler, comprising:

a case;

a shaft configured to be connected to a central rotation shaft of a rotation motor, the shaft installed in the case;

a plurality of bearing housings installed at ends of the case, wherein at least one of the bearing housings comprises:

a first housing portion,

a second housing portion configured to be slidably joined to the first housing portion, and

a bearing installed inside the second housing portion and configured to support the shaft.

13. (New) The fan apparatus of claim 12, wherein the first housing portion further comprises at least one first guide recess.

14. (New) The fan apparatus of claim 13, wherein the at least one first guide recess extends in a longitudinal direction along an inner surface of the first housing portion.

15. (New) The fan apparatus of claim 13, wherein the second housing portion further comprises at least one second guide recess.

16. (New) The fan apparatus of claim 15, wherein the at least one second guide recess extends in a longitudinal direction along an outer surface of the second housing portion.

17. (New) The fan apparatus of claim 15, wherein the at least one first guide recess and the at least one second guide recess face each other when the second housing portion is joined to the first housing portion.

18. (New) The fan apparatus of claim 15, wherein the number of first guide recesses is equal to the number of second guide recesses.

19. (New) The fan apparatus of claim 15, further comprising at least one key configured to be inserted into the at least one second guide recess and the at least one first guide recess.

20. (New) The fan apparatus of claim 19, wherein the number of keys is the same as the number of first guide recesses or the number of second guide recesses.

21. (New) The fan apparatus of claim 12, further comprising at least one labyrinth installed in the second housing portion and configured to hold the bearing.

22. (New) The fan apparatus of claim 12, further comprising a push cover configured to cover the second housing portion when the second housing portion is joined to the first housing portion.

23. (New) The fan apparatus of claim 12, wherein the first housing portion further comprises a grease inlet configured to allow grease to be supplied to an inner portion of the first housing portion, and a plug configured to seal the grease inlet.

24. (New) A dual structure bearing housing assembly, comprising:

a first housing portion;

a second housing portion configured to be slidably joined to the first housing portion and configured to receive a bearing; and

at least one key configured to couple the first housing portion and the second housing portion.

25. (New) The bearing housing assembly of claim 24, wherein the first housing portion further comprises at least one first guide recess formed in a longitudinal direction along an inner surface of the first housing portion.

26. (New) The bearing housing assembly of claim 25, wherein the second housing portion further comprises at least one second guide recess formed in a longitudinal direction along an outer surface of the second housing portion.

27. (New) The bearing housing assembly of claim 26, wherein the number of first guide recesses and the number of second guide recesses is the same, and wherein each first guide recess faces a corresponding second guide recess.

28. (New) The bearing housing assembly of claim 26, wherein at least one key is configured to be mounted in one of the first and second guide recesses, and slidably inserted into the other of the first and second guide recesses.

29. (New) The housing of claim 24, wherein the second housing portion is further configured to slide in the longitudinal direction within the first housing portion in response to a longitudinal force applied to the second housing portion.

REMARKS

Claims 1-29 are pending in this application. By this Amendment, the drawings, specification, and claim 1-6 are amended, and claims 7-29 are added. The specification has been amended for clarification purposes and contains no new matter. Support for the amended and new claims can be found throughout the specification, including the original claims, and the drawings. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

I. ALLOWABLE SUBJECT MATTER

The Examiner is thanked for the indication that claims 1-3 are allowed. By this Amendment, claims 1-3 are amended for clarification purposes only.

II. DRAWINGS

The Office Action objects to the drawings as failing to comply with 37 C.F.R. 1.84(p)(5). The specification has been amended at page 2, line 27 to indicate that the sensor dog and sensor brake are not shown in Figure 1. Further, Figure 4 is corrected to properly indicate a feature corresponding to reference numeral 62a. Accordingly, it is respectfully submitted that the drawings meet the requirements of 37 C.F.R. 1.84(p)(5), and thus the objection should be withdrawn.

III. REJECTION UNDER 35 U.S.C. §112, SECOND PARAGRAPH

The Office Action rejects claims 4-6 under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The amendments made to claims 4-6 are responsive to the Examiner's comments. Accordingly, it is respectfully submitted that claims 4-6 meet the requirements of 35 U.S.C. §112, second paragraph, and thus the rejection should be withdrawn.

IV. NEW CLAIMS 7-29

Claims 7-29 are added to the application. It is respectfully submitted that claims 7-29 are allowable over the references of record.

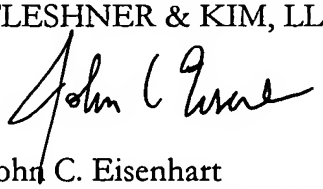
V. CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, **Carol L. Druzbick**, at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this,

concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
FLESHNER & KIM, LLP



John C. Eisenhart
Registration No. 38,128
Carol L. Druzbick
Registration No. 40,287

Enclosures:
Mark-up of Figure 4
Corrected Formal Version of Figure 4

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Chantilly, VA 20153-1200
703 502-9440 JCE/kam:jlg
Date: October 14, 2003

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FIG. 4

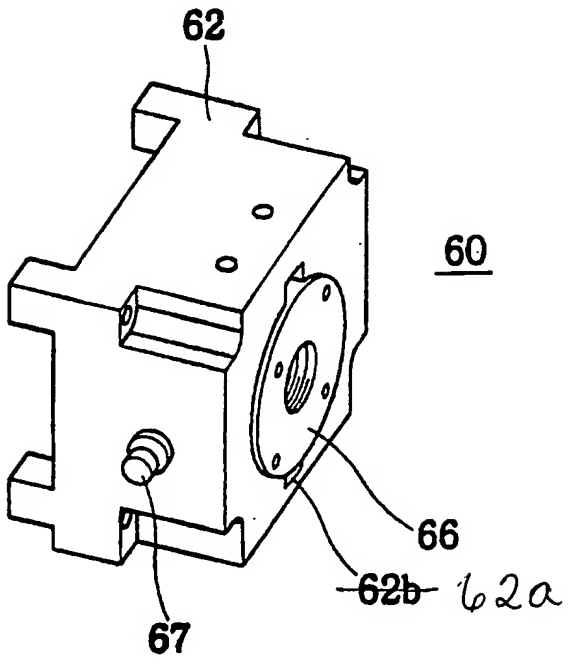

FIG. 4